MULTI-CHIP MODULE HAVING BONDING WIRES AND METHOD OF FABRICATING THE SAME

ABSTRACT OF THE DISCLOSURE

Provided herein are multi-chip modules (MCMs) having bonding wires and fabrication methods thereof. The multi-chip module includes a substrate and a plurality of chips sequentially stacked. At least one top chip, stacked above a lowest chip, has an insulating film that covers the backside thereof. Also, each of the stacked chips has bonding pads formed on the periphery or edges of its upper surface. At least one insulator is interposed between the stacked chips. The insulator exposes the pads on the underlying chip. The pads of the respective chips are connected to a set of interconnections, which are disposed on the substrate. This configuration of stacked chips enables the overall height of the memory module to be reduced because the insulating film prevents the bonding wires from contacting the substrate of the top chips.